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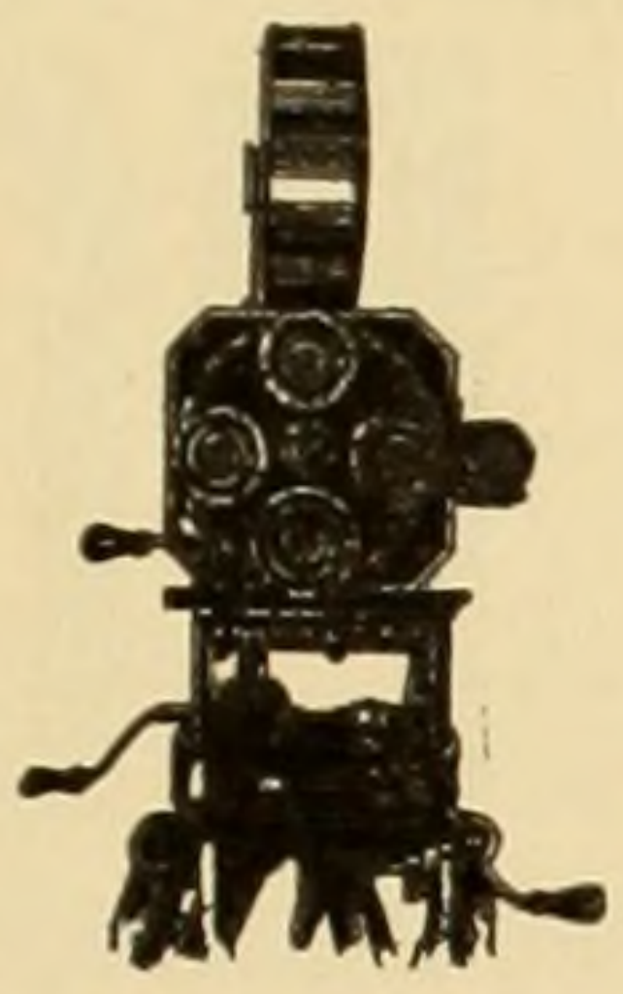

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A. S. C. Establishes Experimental Library

Projection — Conducted by **EARL J. DENISON**

Amateur Cinematography Seen as World Peace Agent

De Vry Places New Small Camera on Market

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Vol. VII **JULY, 1926** **No. 4**

American Cinematographer

Foster Goss, *Editor and General Manager*
C. K. Phillips, *Special Representative*

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The EDITOR'S LENS • • focused by FOSTER GOSS

Important Plans

OFFICERS of the American Society of Cinematographers predict that their coming fiscal year will be the most successful in the history of the Society.

¶ Daniel B. Clark, president of the A. S. C. for 1926-27, has outlined a program that stands out as the most ambitious to be undertaken since the cinematographers' society was organized.

¶ One of the major features in Clark's program, that of the A. S. C. standard cinematographic experimental library, is actively under way, with tests on numerous subjects already having been reduced to positive film. Other parts in the A. S. C. activities for 1926-27 are being perfected at the present time, and will be formally announced shortly.

¶ As has been previously commented on, the idea of the standard cinematographic experimental library presents the possibility of saving producers thousands of dollars, by eliminating needless economic waste and by bringing all standard practices in the field of motion photography to the plane of certainty.

¶ Results of the various experiments by the A. S. C. members are exhibited at the open meetings of the Society where all members may digest the details of the finished film. Such exhibitions invariably bring forth an exchange of ideas among the members that is conducive to accentuating the possibilities of further cinematographic investigations.

¶ Prints which record the experiments are kept in the newly installed library at the headquarters of the American Society of Cinematographers in the Guaranty Building, Hollywood, where the organization owns its own offices and assembly rooms which contain complete facilities for projection and previewing.

Editors and Exhibitors

EXHIBITORS and executives who attended the theatre owners convention in Los Angeles in June carried away with them, in the aggregate, a better idea of the magnitude of the strictly cinematographic phases in the art of making moving pictures.

¶ They had, in their visits to the various studios, the opportunity to view the cinematographer in his rightful role as a real artist, and, practically, the hub about which all "shooting" revolves.

¶ This month there come to Southern California the representatives of the national editorial association. May the visiting editors likewise acquire a better understanding of the calling that is the cinematographer's. Being men of perception and penetration, the scribes will soon judge for themselves the relative values in film production, and store such information for further use.

¶ The exhibitor and the editor, especially in small towns and rural communities, usually find much that is common in interest; and with both better acquainted with cinematography and cinematographers, the art of motion photography may well be entering a new era that will date from these two conventions held in the summer of 1926.

Matters of Geography

WHAT'S all these references, in the trade papers, to Eli Whitney Collins, newly elected president of the exhibitors, as a "man from the Middle West" or as a "Westerner"?

¶ We had the idea that Collins hailed from Arkansas. As much as "Eli Whitney" relates to cotton; as much as cotton suggests the south, that's how much we suspect that a man from Arkansas, if he must be classified sectionally, is a Southerner.

¶ We wonder what they would say about it down in Arkansas?

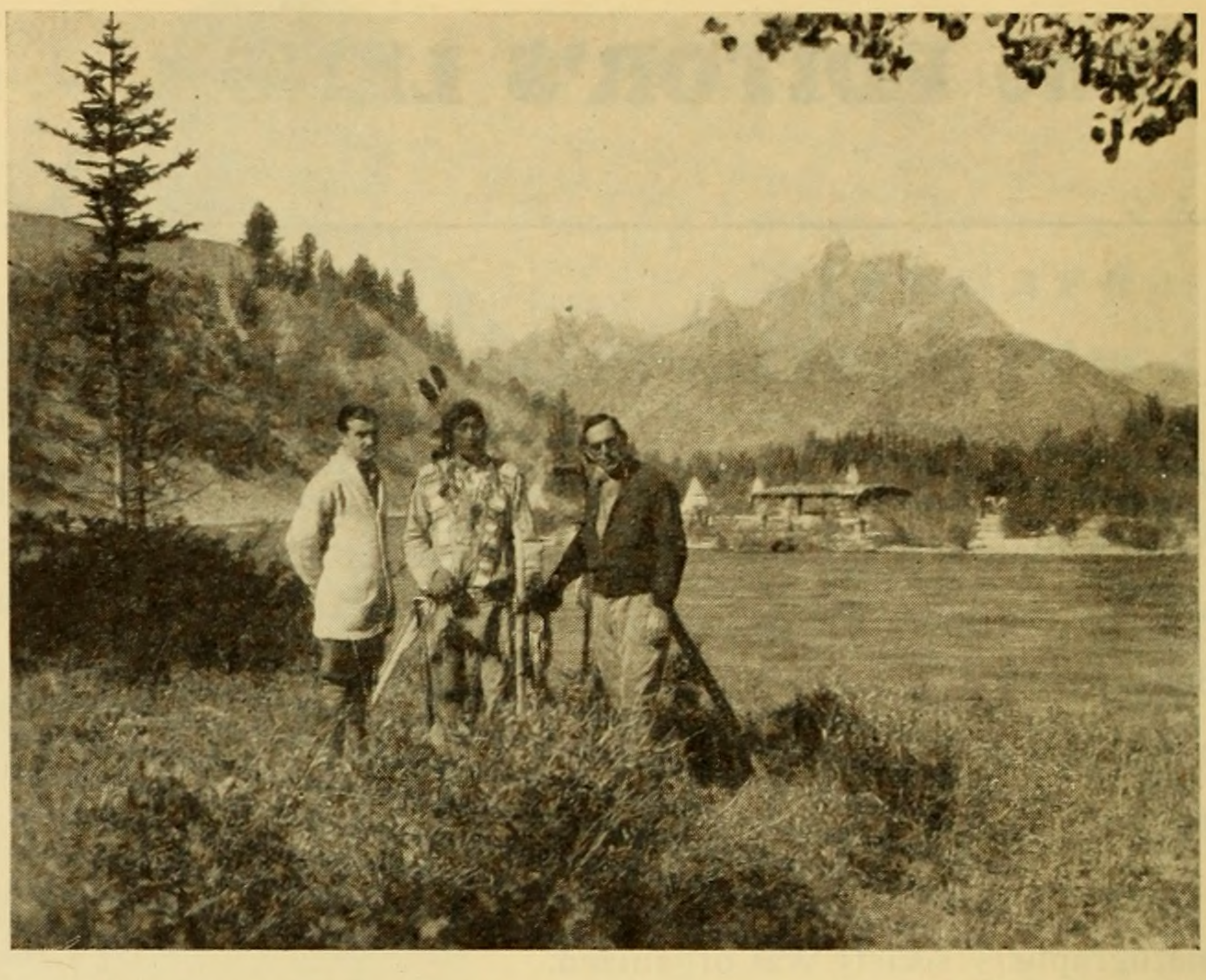
Pictorial Gems of Scenes in the West

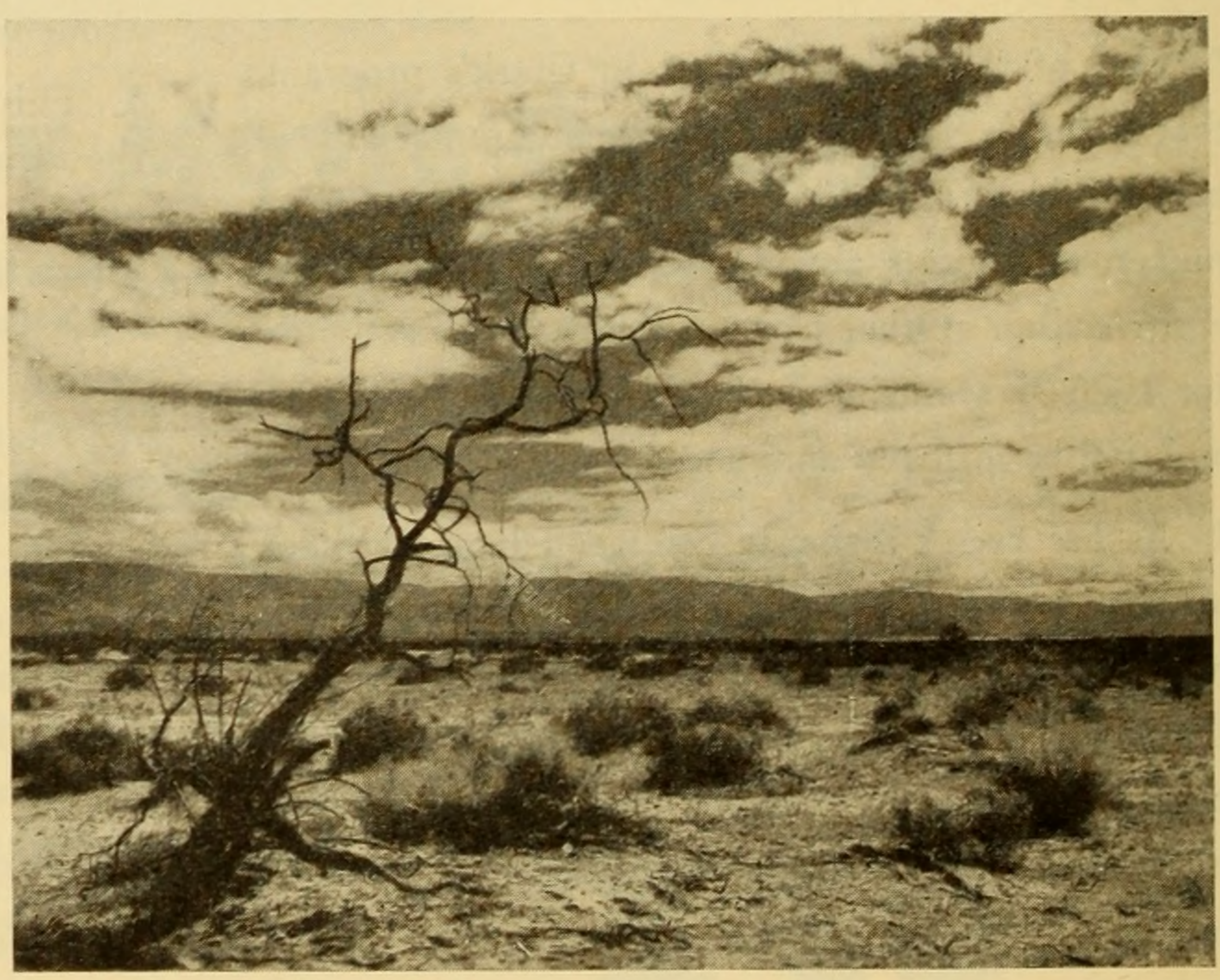
The three accompanying reproductions present superb examples of "still" photography. Each of the scenes is laid in the West.

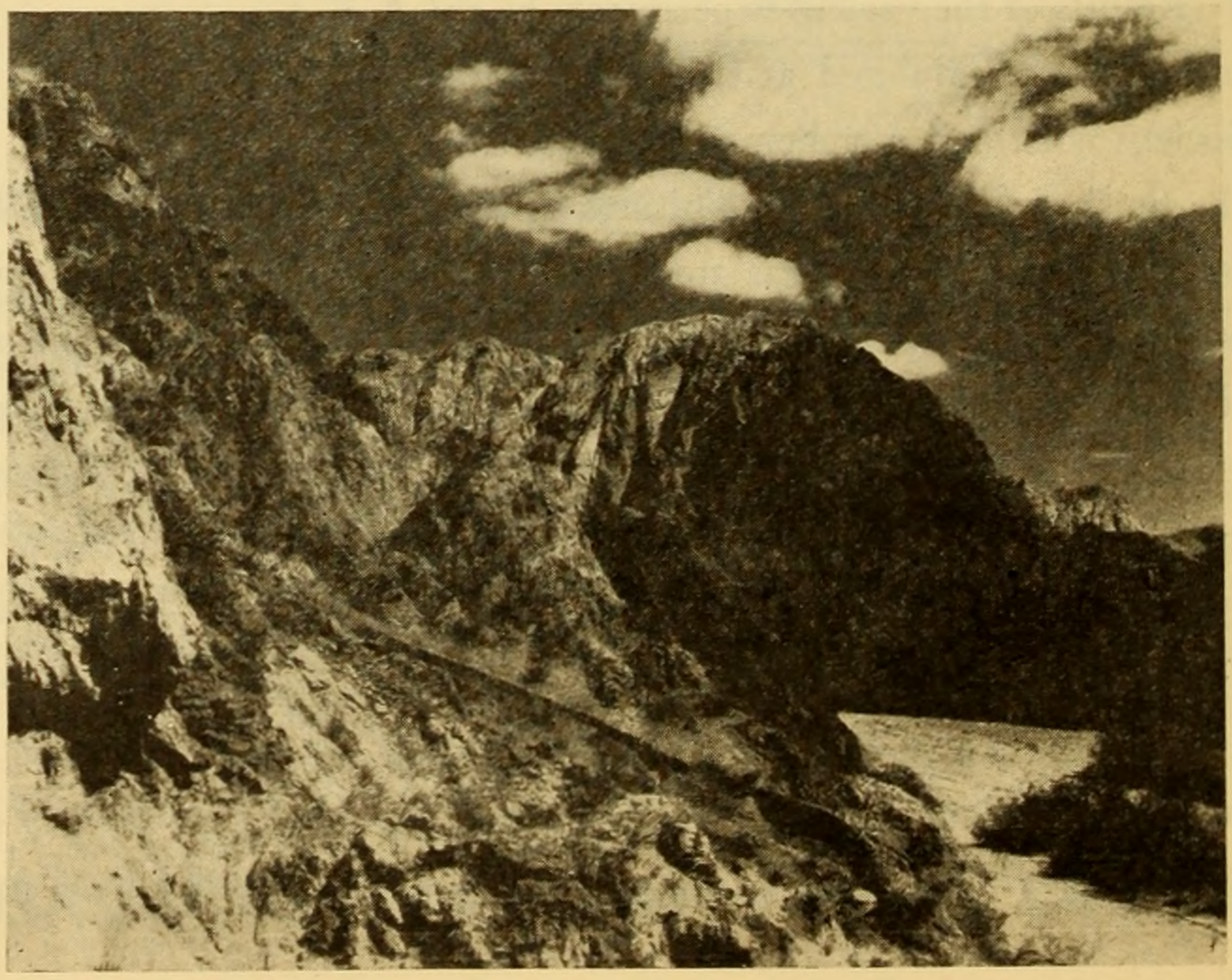
Above: This photograph shows a bit of background at Jackson Hole, Wyoming, where George Schneiderman, A. S. C., photographed location scenes for "Three Bad Men," a John Ford production for Fox. Behind the cameras flows the Snake River. Schneiderman is on the right. With him are Joseph Valentine (left) second cinematographer; and (center) a native chieftain who participated in the Ford production.

Center: Shows a scene in the desert country tapped by Palm Springs, California.

Below: Painted Canyon, 38 miles east of Palm Springs, California. The center and the lower scenes were photographed by Daniel B. Clark, president of the American Society of Cinematographers.







Amateur Cinematography

Amateur Cinematography as World Peace Agent

Relations *between* Amateurs Seen *as* Being Conducive *to* International Good Will.

Hiram Maxim, famous inventor, sees in amateur cinematographic outfits an agency for world peace. His views in this direction were expressed in an interview which, written by Kathleen Halladay, appeared recently in the Boston Post.

Mr. Maxim's interview is, in part, as follows:

"It seems to me that an organization of amateur cinematographers," began Mr. Maxim, "combined in close association with the present organization of amateur radio operators (and by amateur radio operators I do not mean people who listen in on the broadcasting of jazz music and after-dinner speeches, but those of us who relay communications to each other by dots and dashes from one end of the world to the other)—this combination, I think, is a remarkably practical influence to promote international friendship.

Connecticut and Timbuctu

"When people have visual knowledge of conditions in other countries, there is bound to come sympathy and understanding. The mass of the people will not get this knowledge from reading, they certainly will not get it from lectures; there are too many other things to read and hear.

"But somehow I know that if I could send my home-made film, called 'Winter in Connecticut,' to some other amateur in Timbuctu or Nikolajewskoje or Caraguatatuba and get back one showing conditions in those places, the two of us would not only be closer together, but we would both understand and appreciate the problems and advantages of our respective countries better than we could in any other way; we wouldn't be in such a hurry to cut each other to pieces in the name of Mars. . .

"Of course," he added, "I suppose I've got a lot of fool notions—when I had the idea of an international association of amateur radio operators, folks said: 'He's just a poor darn fool who wants to send telegrams for nothing.'

New Force For Peace

"When the Englishman, the Frenchman, the Belgian, the Italian and the German broke bread with each other in a common interest and ideal, it broke down a great barrier. It established friendly intercourse that was equal

(Continued on Page 18)

De Vry Places New Small Camera on the Market

Chicago Firm Develops Standard Camera *with* 100-Foot Rolls. Uses Spring Motor.

Announcement, long anticipated, is made this month that the De Vry organization of Chicago is ready to market immediately the De Vry automatic, portable motion picture camera which has been in the process of development for more than a year.

100-Foot Lengths

The De Vry camera will take 100-foot lengths of standard film in a single loading. Motive power is provided by a multiple, high tension spring, set into motion by "pressing the button." There is a uniform release of 55 feet per winding.

Three View Finders

The camera comes equipped with standard F 3.5 anastigmatic lens, and any other standard professional lenses may be installed. The instrument carries three view finders.

Tripods Optional

Tripods may be used for telephoto pictures and the like; however, the tripod is not required on other shots unless desired.

The new camera is designed as a companion instrument to the De Vry standard projector which has been in wide usage for many years.

In Cameraformia

Frank Cotner, A. S. C., is chief cinematographer on a series of westerns starring Al Hoxie under the direction of Paul Hurst for Bud Barsky productions. Cotner's company is on location at Sequoia National Park. It is expected that they will be there and in the vicinity of Three Rivers for about eight weeks.

* * * *

Glen MacWilliams, A. S. C., is filming Fox' "The Return of Peter Grimm." Victor Schertzinger is directing.

* * * *

Barney McGill, A. S. C., is photographing the Fox production of "What Price Glory" which R. A. Walsh is directing. Among those who are appearing before McGill's camera are Victor MacLaglen as Captain Flagg, Edmund Lowe as Sergeant Quirt, Dolores del Rio as Charmaine, as well as Leslie Fenton and Ted McNamara.

* * * *

John Arnold, A. S. C., is shooting Metro-Goldwyn-Mayer's special, "The Fire Brigade." Will Nigh is directing.

* * * *

John W. Boyle, A. S. C., is filming "The Masked Woman," a First National production directed by Balboni and starring Anna Q. Nilsson. The cast includes Holbrook Blinn and Charles Murray.

* * * *

Abe Fried, A. S. C., is in charge of photography on "The Country Beyond," a Fox production which Irving Cummings is directing. Olive Borden is featured.

* * * *

Harry Perry, A. S. C., is slated to photograph "Wings," Paramount's epic of the air that is to be directed by William Wellman.

* * * *

Walter Lundin, A. S. C., is photographing "The Mountain Lad," Harold Lloyd's latest production, which is being directed by Lewis Milestone,

Al Gilks, A. S. C., has been busy with maritime scenes off Catalina Island, California, for James Cruze's production of "Old Ironsides" for Paramount. The scenes are of such magnitude that Bert Glennon and Harry Perry, both A. S. C. members and stars on the Lasky camera staff, were called in to capture important action from different angles.

* * * *

Gilbert Warrenton, A. S. C., has completed the filming of "Butterflies in the Rain," a Universal production directed by Edward Sloman.

* * * *

Reginald Lyons, A. S. C., is filming the current productions of the Richard Harding Davis-Van Bibber series at the Fox studios.

* * * *

J. D. Jennings, A. S. C., is photographing "The General," the latest Buster Keaton. feature.

* * * *

Georges Benoit, A. S. C., is being praised for his cinematography in "The Speeding Venus" and "West of Broadway," Metropolitan productions starring Priscilla Dean.

* * * *

Floyd Jackman, A. S. C., is filming Jimmy Finlayson comedies at the Hal Roach studios. Stan Laurel is directing.

* * * *

Victor Milner, A. S. C., will film "Kid Boots," which, taken from the Broadway success, will have a cast headed by Eddie Cantor, the original star. Frank Tuttle will direct. The cast will also include Billie Dove, Clara Bow and Larry Gray.

* * * *

Sol Polito, A. S. C., is shooting Ken Maynard in the western feature, "Ride Him Cowboy."

* * * *

Ernest Palmer, A. S. C., is photographing the Fox production, "The Pelican," which is being directed by Frank Borzage.

PROJECTION • Conducted by Earl J. Denison

Cause, Effect in Cleaning Motion Picture Film

Ways *in which* Film Accumulates Oil, Dust *and the like* Are Enumerated.

By
Trevor Faulkner
(From Transactions, Society of Motion Picture Engineers)

Many Experiments *to Find* Machinery Adapted *to* Proper *and* Thorough Cleaning.

The "Cause and Effect of Cleaning Motion Picture Film" has been chosen as the subject for an article that I have been asked to prepare and place before you, and in so doing, I am talking to you on a subject that has occupied my thoughts and efforts since becoming identified with the motion picture industry, which dates back many years, when you consider the few that motion pictures, as an industry, have known.

In the beginning, as an "operator," then as an exhibitor, later as an exchange man, and now as head of a department that has as one of its chief functions the cleaning and renovating of used positive film, I have experimented, striven, and constantly had the vision of ultimately developing, or at least helping to develop, a satisfactory plant for cleaning film, and now feel that this has, to a large degree, been accomplished, for we have evolved a department that is satisfactorily cleaning and revitalizing used positive film.

Projectionist's Compartment

To begin, let us first consider the showcase that is used to display our stock, "motion picture film,"—the projection room.

In practically all cases this room is in the highest and most distant point in the entire theatre, and is seldom under the care of a janitor or porter, and in too large a percentage of cases, is hardly ever seen by the manager. Again, on account of the compartment being at the highest point of a theatre, and usually with an exhaust fan in it, a large percentage of the dust that arises from the constant stir of patronage is drawn into the booth, and necessarily through the port holes in front of the projection machines. This all shows us that we are displaying wares under conditions that, after a few such showings, offer a big handicap.

Care in Handling

Now let us consider our stock of ware and its handling. When positive film is first released and placed in the hands of the projectionist for exhibition, it is more sensitive to damage than when older, and consequently more care must be used in its handling. Regardless of any prior waxing the film may have had to prevent this probable damage, the projectionist often applies oil to the film. Then there are many cases where the film is often run through a continuous bath of lubricating oil, for in one make of projector, when the projector is tilted to fit the angle at which the light rays must be thrown to reach the screen, there is a receptacle created at the base of the mechanism that is capable of receiving and holding a sufficient amount of oil that is drained from the mechanism to give a long lower loop for this steady bath of oil. Another make of projector, the model of a year or two back, gave the film a constant spray or sprinkle of oil through a worm intermittent bearing. It is also a usual thing for the projectionist to have a pan placed on the floor under the projector to catch the oil drip from the mechanism, and often this pan, with more or less oil in it, will also catch the ends of the film as the projectionist is either threading up the machine or is taking the film out of the lower magazine. You can rightfully place all of the blame for all oil on film to one or all of these conditions, for in no other way does film ever come in contact with oil.

Dust and Lint

Motion picture film, when moving rapidly and subjected to any friction, will generate a sufficient amount of static electrical current to attract any dust or lint that it comes in contact with, and will so pick up dust and lint, very much as a magnet will pick up small particles of metal. Consequently when the doors of an enclosed projector are opened, or when film is "spilled" on the floor, the film attracts and collects a large amount of the dust and lint that is around. The oil that is already

(Continued on Page 16)

A. S. C. Establishes Experiment Library

President *of* Society Explains Important Undertaking *by* Cinematographers

The following story was written by the editor of this publication for the studio section of the Exhibitors Herald. *In it Daniel B. Clark, president of the American Society of Cinematographers, explains one of the major features in the policy of the A. S. C. for the coming year:*

Photographic departments recently instituted by the American Society of Cinematographers will result in saving producers thousands of dollars in production experimental costs, according to a statement of Daniel B. Clark, president of the cinematographers' organization.

The A. S. C., under the direction of Clark, is establishing an experimental library on standard cinematographic subjects, including lenses, various types of illumination, filters, gauze, glass shots, diffusers and the like.

The object of the library is to reduce, to a definite and standard basis, the workings of all the major elements that are brought into play in the art of cinematography. Clark and his fellow members of the A. S. C. state that such a procedure sponsored as it by the society will be the means of eliminating duplication at the various studios in photographic experiments that parallel each other.

Aim to Cut Waste

"We aim," Clark declares, "to cut down this economic waste of one cinematographer's going out and necessarily spending a lot of time and company money in ascertaining photographic results, when, a couple of weeks later, a fellow cinematographer finds that it is his duty to cover practically the same ground.

"What we are doing is to provide, at the A. S. C. headquarters, a permanent record of cinematographic experiments on standard subjects. If a certain cinematographer wants to know how a given lens works out, it will be needless for his production company to go through the expenditure of conducting a second experiment when the subject has been already covered in the library by a fellow A. S. C. member.

Subjects Photographed by Experts

"The subjects in this library will be photographed by the A. S. C. members who are masters in their individual lines so that the film will represent the best results that could be attained any place in the world.

"What I have just mentioned," Clark continued, "is but one of the many ways in which the American Society of Cinematographers is working to cut down the cost of production. Our plans for the fiscal year just started are the most comprehensive in the history of the A. S. C., as will be evident as the year progresses."

Cooper Hewitt to Put Up New Six-Story Building in Hoboken

Plans have been announced for the erection of a new building to house the expanded activities of the Cooper Hewitt Electric Company in Hoboken, New Jersey.

Work on the new structure will begin at once.

Fourteen years ago, when the Cooper Hewitt Electric Co. moved to Hoboken from New York City, a large plant was built specially for it. This anticipated growth of the business for many years to come. Since then additional buildings have been acquired, but all are now insufficient for the increasing production.

Continued Growth

After the General Electric Co. acquired the stock of the company some years ago, it became evident that greatly enlarged manufacturing facilities would be needed. Accordingly an entire city block was acquired. This adjoins the original plant on the north. Plans are being made now, not only for present requirements, but also for future developments. These call for a new building at the northeast corner of Adams and Eighth Streets, Hoboken. This is to be 100 ft. front by 430 ft. deep and six stories high.

First Section

The first part of it to be built will be 100 ft. by 200 ft. and will be started at once. It will contain the glassware manufacturing and laboratories of the company to be brought

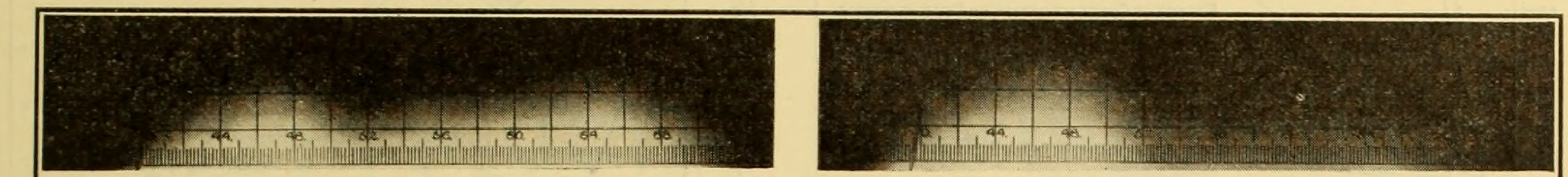
(Continued on Page 24)

Effect of Desensitizers in Development

Continued *from* Last Month.
Additional Tables *and* Charts
Used *in* Investigation Given.

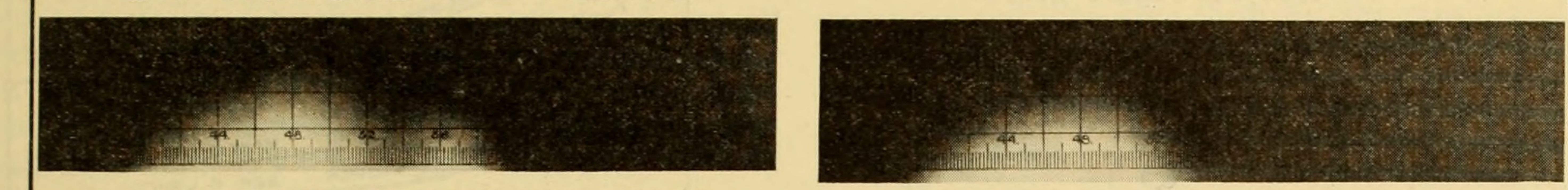
By M. L. Dundon
and J. I. Crabtree
Of the Eastman Research Laboratory.

Full Details *as* Announced
in Transactions *of* Society *of*
Motion Picture Engineers.



PANCHROMATIC FILM BEFORE DESENSITIZING

PANCHROMATIC FILM AFTER DESENSITIZING



MOTION PICTURE NEGATIVE FILM BEFORE DESENSITIZING

MOTION PICTURE FILM AFTER DESENSITIZING

Figure Six: Effect of Pinakryptol green on color sensitivity of Panchromatic and motion picture negative film. Desensitized films were given 200 times as much exposure as the untreated films.

(Continued from last month)

In Fig. 5 are shown similar results for motion picture negative film with 2 minutes bathing.

The effect of pinakryptol green on the relative color sensitivity of panchromatic film is shown by Fig. 6. Pieces of panchromatic and motion picture negative film were bathed for 2 minutes in pinakryptol green 1-10,000 dried and exposed in a spectrograph. The desensitized samples were given about 200 times as much exposure as the untreated film. It is evident that desensitizing with pinakryptol green reduces color sensitivity much more than it does the original blue sensitivity of the emulsion. The effect of different dyes in this respect varies greatly. Pinakryptol yellow is more effective and phenosafranine less effective in reducing color sensitivity than pinakryptol green. In fact phenosafranine is actually a color sensitizer to a slight degree and confers a definite color sensitivity on ordinary plates with a maximum effect at 580 mm. in the green-yellow region. Basic scarlet N also extends slightly the sensitivity in the green.

The effect of time of bathing on sensitivity may be seen from typical curves of Fig. 7 in which sensitivity of panchromatic film is plotted against time of bathing. It is evident that sensitivity falls off very rapidly for the first minute or two but diminishes very slowly after 5 minutes.

2. *Limits of Safety in Exposing Desensitized Film to Different Safelights.*

In Table I the comparative safety of untreated film to safelight exposure was indicated. In Table II are given similar data for film desensitized for 2 minutes and 5 minutes with various concentrations of pinakryptol green. The numbers represent time in minutes for which exposures were made without producing visible fog. Tests were only extended to 8 minutes, as it was considered that this was sufficient time of exposure to cover any practical need, although in many cases the time of safety was much longer.

F. indicates fog in less than ½ minute, and the numbers show the time in minutes for which the film could be exposed without visible fog, after a treatment corresponding to the time and concentration given at the top of the column.

From these figures it is seen by bathing panchromatic film in a 1-10,000 solution of pinakryptol green, or after the film has been in the developer containing 1 part in 25,000 of the desensitizer, inspection of the film may be conducted with safety with a Series 4 Wratten safelight containing a 25 W. bulb at a distance of 12 inches.

Under the same conditions motion picture negative film may be safely examined with a Series 0 safelight.

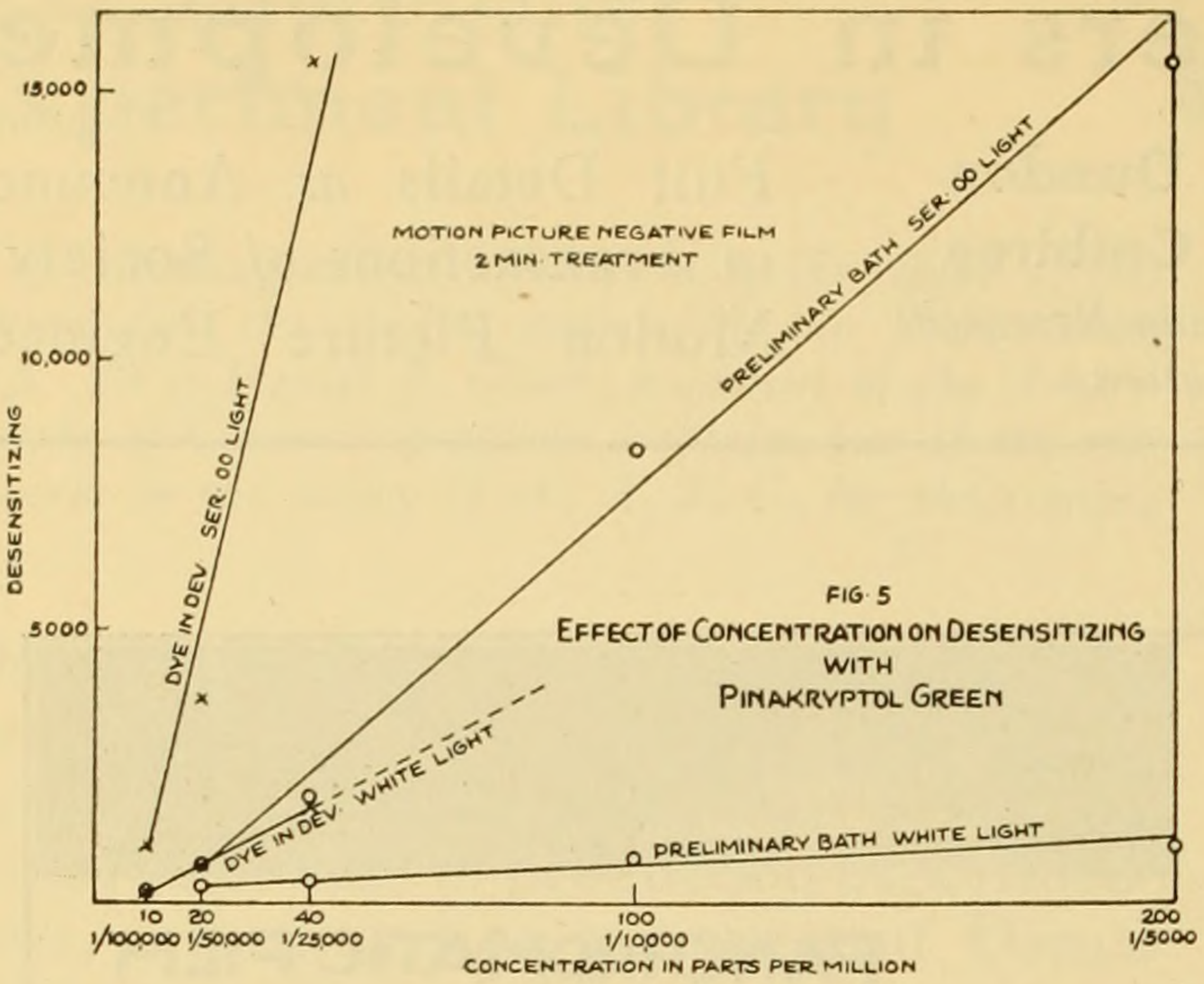
3. *Bleaching of the Latent Image on Desensitized Film by Red Light.*

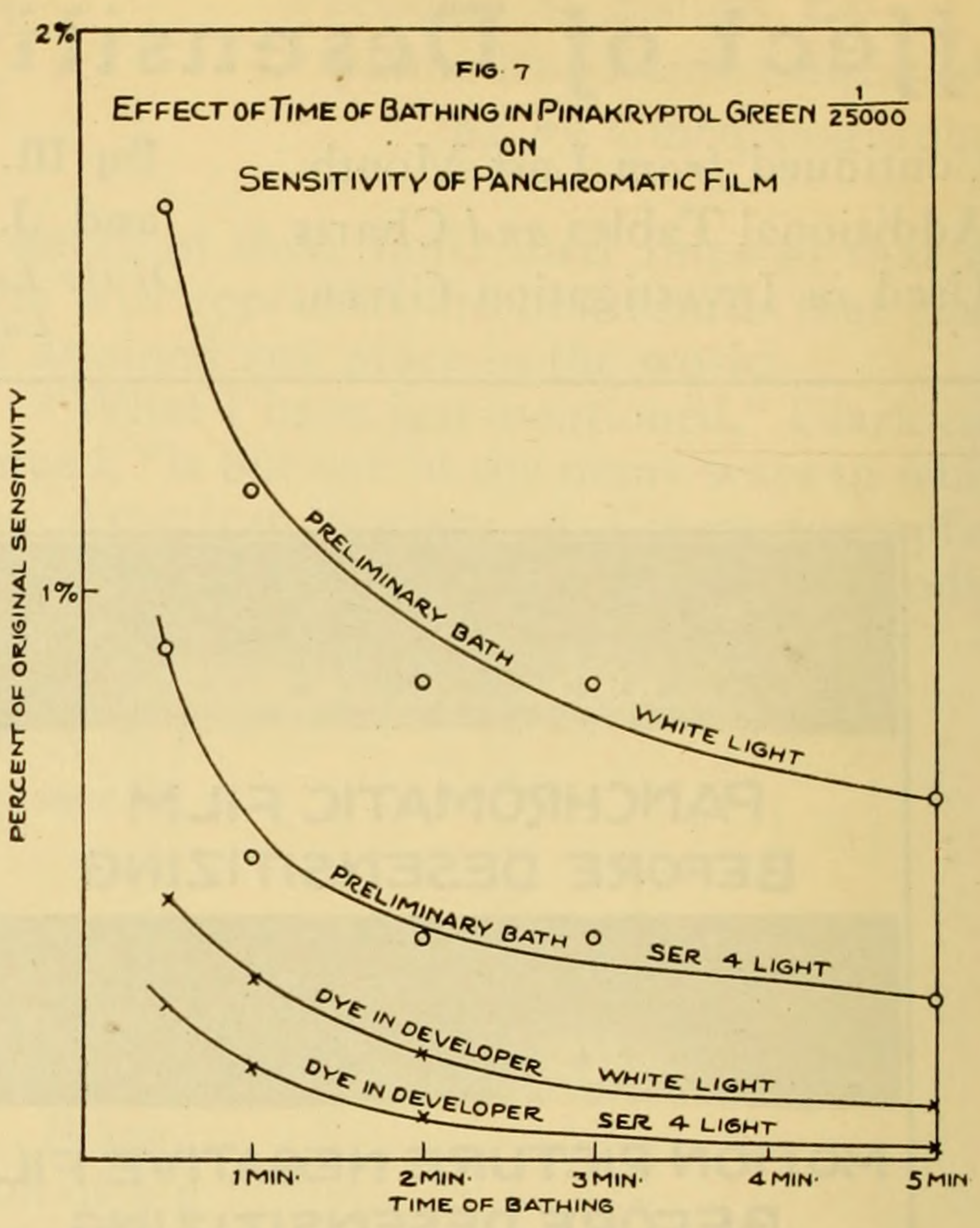
It is a well known fact that when an exposed plate is treated with certain dyes and then exposed to red light the latent image of the first exposure is destroyed. Ordinary desensitizing dyes promote this action very strongly. In fact, as Luppo-Cramer[24] has shown, if a plate is given

---

[23] A. Hubl, "A Contribution to the Knowledge of Development in Bright Light," Phot. Rund. **62**, 235, (1925).

[24] Luppo-Cramer, "Desensitizing and Duplicate Negatives," B. J. Phot. **69**, 765, (1922) (Abs.) Phot. Rund. **59**, 269, (1922).





Above: Figure five.

Right: Figure seven.

a uniform exposure, bathed in phenosafranine, exposed through a negative to red light and then developed, the preliminary exposure is removed in such a way that a duplicate of the negative is produced. In the case of an iodized plate when treated with certain dyes bleaching may take place even in blue light.[25]

In the ordinary practice of developing a desensitized film in bright red light this bleaching action may be quite serious. With a non-color sensitive film after a preliminary desensitizing bath but before development, the safe time of exposure to a red safelight is not measured by the time required to produce fog, but by the time required to destroy the latent image. With panchromatic film the red sensitivity is not destroyed sufficiently for bleaching to become serious. Also after development has once started no appreciable bleaching occurs. With motion picture negative film bleaching has been found to take place with Wratten safelights Ser. 0, 1, and 2, and with positive film even Series 00 was effective. No bleaching has been detected with the green safelight, Ser. 4.

In Fig. 8 is shown the bleaching effect of red light on a latent image with motion picture negative film. A step tablet exposure was made, the film bathed in pinakryptol green 1-2000 for 2 minutes, parts of the sheet

TABLE II
Safe Time of Exposure of Desensitized Film to Wratten Safelights. Exposures at 30 cm. (1 ft.) from 8"x10" Wratten Safelight Lamp containing 25 W. Bulb.

Wratten Safelight Series	Concentration of Preliminary Bath.								Concentration of Dye in MQ Tank Developer.			
	1-5000		1-10000		1-25000		1-50000		1-25000		1-100000	
	2 min	5 min	2 min	5 min	2 min	5 min	2 min	5 min	2 min	5 min	2 min	5 min
Panchromatic Film												
1	F	F							F		F	F
2	1	2										
3	8	8	8	8	8	8	1	8	8	8		
4	8	8	8	8	1	8		1	8	8	F	1
Motion Picture Negative Film.												
00	1	8	F	½	F	F	F	F	8	8	F	F
0	8	8	8	8	8	8	1	8	8	8	1	8
4	8	8	8	8	8	8	4	8	8	8	8	8

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[25] Luppo-Cramer, "Bleached Out Pictures in Silver Iodide," Phot. Ind. 1925, p. 650.

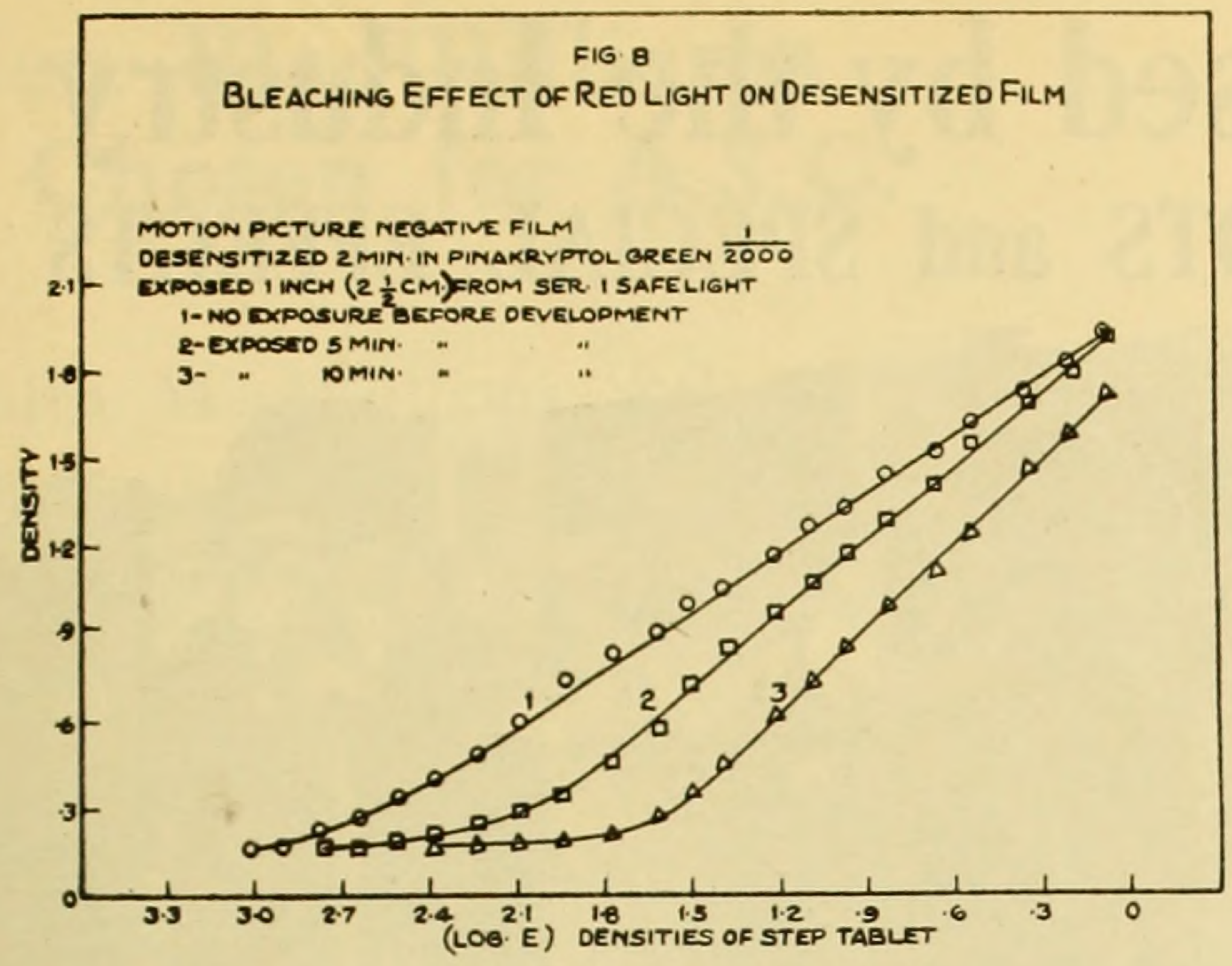
FIG 8
BLEACHING EFFECT OF RED LIGHT ON DESENSITIZED FILM

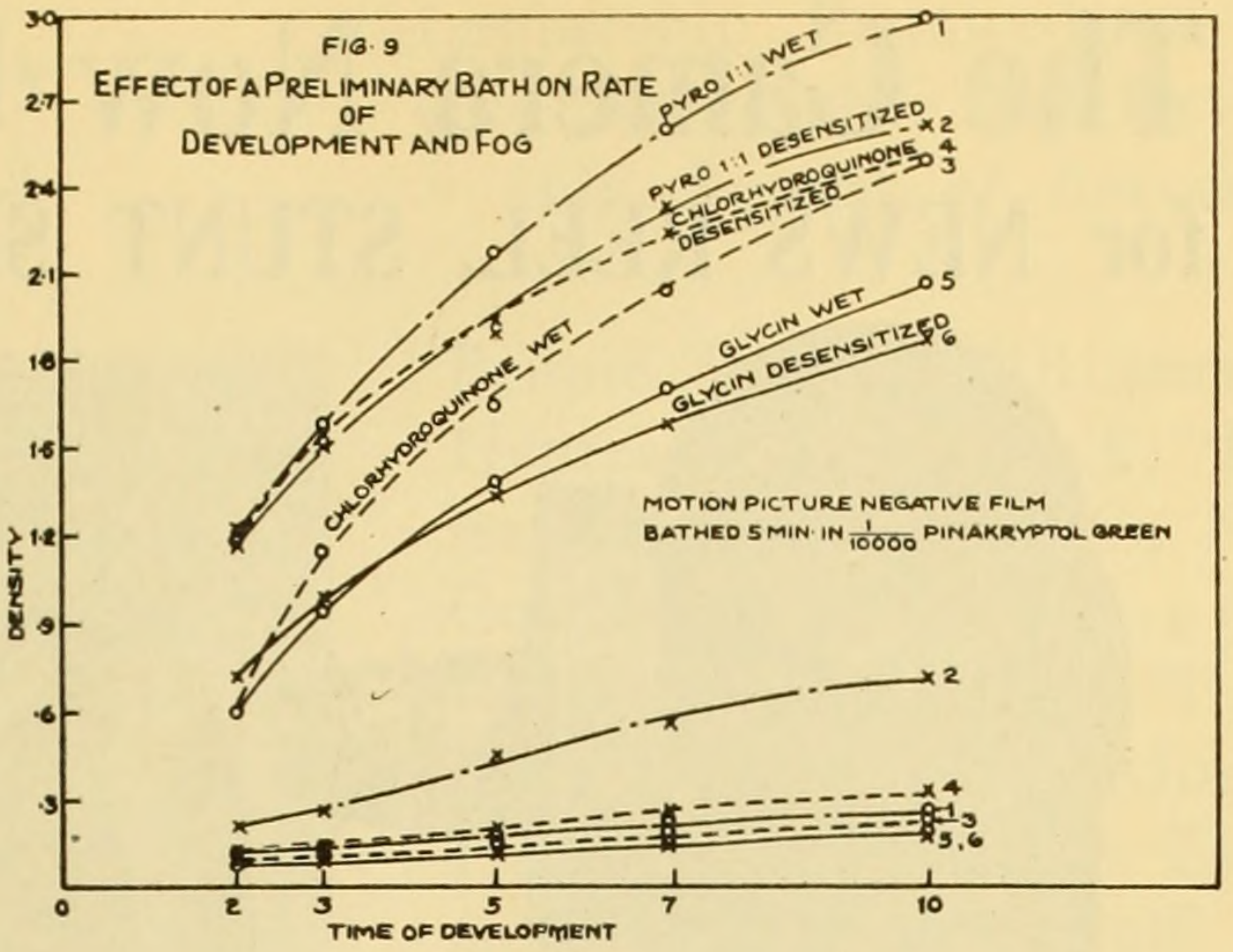
FIG. 9
EFFECT OF A PRELIMINARY BATH ON RATE OF DEVELOPMENT AND FOG

exposed to a Series 1 safelight at 1 inch for 5 and 10 minutes and the several parts of the sheet developed together. The progressive destruction of the lower densities and resulting increase in contrast are evident. Of course these conditions are much more severe than would occur in practice.

In Table III the results of another interesting experiment are tabulated. A sheet of motion picture negative film was given a flash exposure sufficient to develop to a density of about 0.90. It was then cut into strips which were desensitized for 5 minutes in solutions of pinakryptol green of the various concentrations given. Parts of the wet strips were then exposed one inch (2.5 cm.) from a Ser. 1 safelight for 2, 5, and 10 minutes and all developed. The resulting densities show that when the treatment was sufficient to prevent fog, bleaching occurred. Under these conditions with a concentration of 1-1,000,000 the film increased in density, while with 1-100,000 the latent image was bleached. When a Series 0 safelight was used the change took place between 1-100,000 and 1-50,000.

TABLE *III*

Effect of Red Light on the Density of Pre-exposed Film. Desensitized for 5 minutes with Different Concentrations of Pinakryptol Green

No.	Concentration of Pinakryptol Green.	Time of Exposure to Red Light. None.	2 min.	5 min.	10 min.
1	None	0.92	0.99	1.19	1.55
2	1-10,000,000	0.91	0.98	1.15	1.40
3	1-1,000,000	0.89	0.98	1.12	1.26
4	1-100,000	0.88	0.76	0.47	0.24
5	1-50,000	0.89	0.82	0.45	0.19

In the case of a developing paper which showed bad abrasion it may be of interest to note that when bathed in pinakryptol green and exposed to red light a latent light image was destroyed without affecting the abrasion.

Carroll[6] found that pinakryptol green destroyed a latent image on process plates in the dark in a few hours. A test on motion picture negative film showed that after a week the latent image of a step tablet exposure was appreciably diminished. After three months it was again tested and found to have nearly the same threshold exposure but the contrast was much less. With fine grained emulsions the bleaching would no doubt take place much more rapidly. We may conclude, therefore, that it would not be safe to desensitize exposed negatives and then keep them for any considerable length of time before development.

4. Fog Produced by Pinakryptol Green in a Preliminary Bath.

Many dyes which have a strong desensitizing action are such bad fogging agents that they cannot be used for this purpose. Pinakryptol green has some fogging action and this fact must be considered when using it. The intensity of fog produced as well as the effect on the speed of development varies greatly with different developers.

In order to find something of the extent of such variations, strips of motion picture negative film exposed uniformly along one edge were dipped into a solution of pinakryptol green 1-10,000 for 5 minutes, wiped with a chamois, and lowered into a tube of developer at regular intervals so that a range of development times was obtained on the same strip. Comparison strips were made by soaking in water instead of desensitizing. The densities of the image and fog were then plotted against time of development. Typical curves for three different developers are shown in Fig. 9.

With pyro 1:1 (B. J. formula) the fog on the desensitized strip was enormously increased, and although the first appearance of the image was accelerated its later development was greatly retarded. Dilution of the pyro 1:1:2 did not change appreciably the retarding or fogging action for a given degree of development. With chlorhydroquinone the fog was somewhat increased for a given time, but the initial accelerating action on development was so great that it extended throughout any ordinary development time. With glycin no fogging action occurred, the image appeared sooner on the desensitized strip but the growth of density on prolonged development was retarded. From these curves it is evident that pinakryptol green in a preliminary bath affects fog and rate of development very differently with different developers, and whether it retards or accelerates development depends on the particular point at which a comparison is made. These facts show why conflicting statements on this subject might easily occur in the literature.

It should also be mentioned that a desensitizing bath which has been standing for some time in a tank may accumulate a scum on the surface which must be removed before using or it will stick to the surface of a film causing a bad smeary fog.

(Continued on Page 20)

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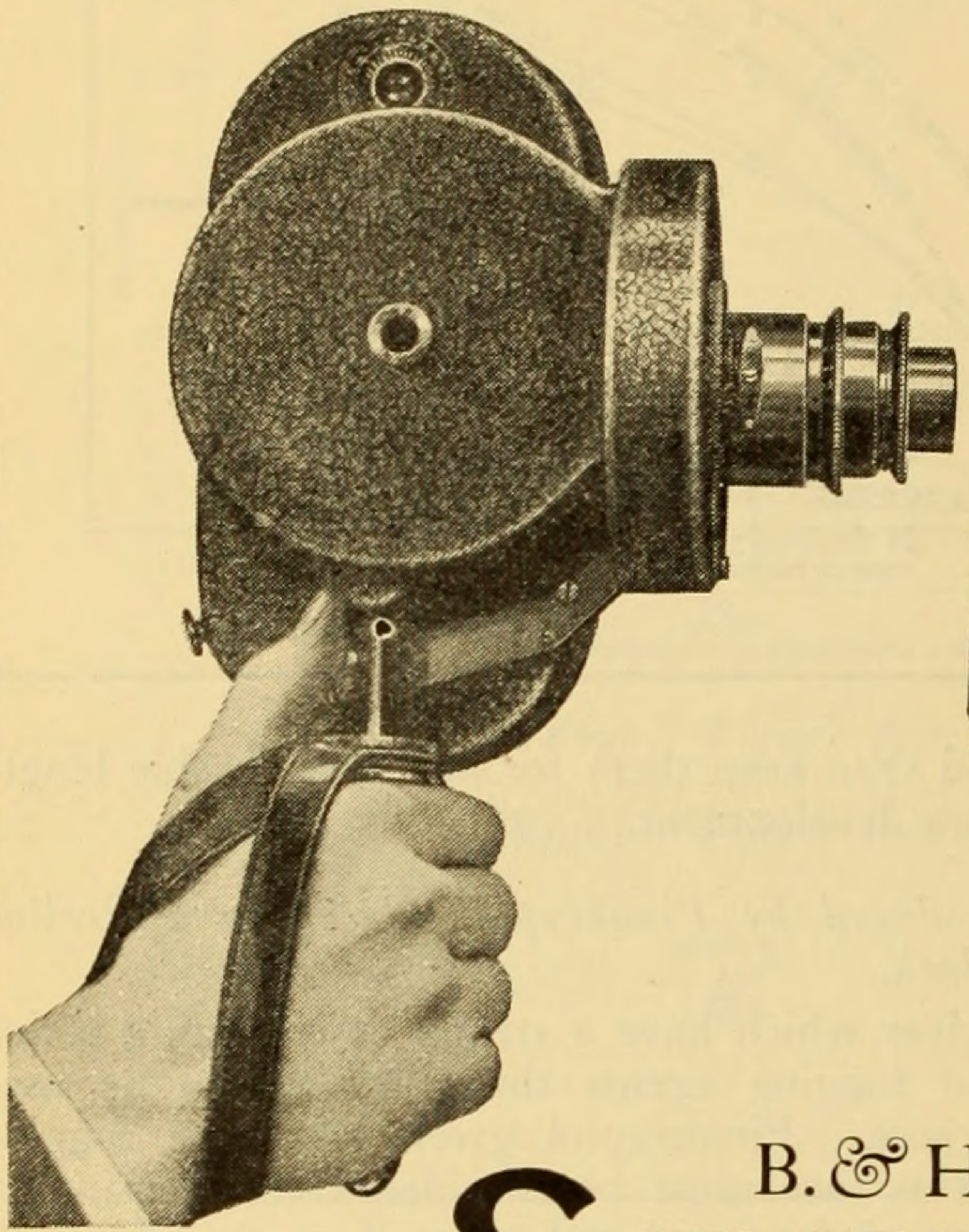

Commodore J. Stuart Blackton using Eyemo to obtain a special effect for his Warner Bros. production of E. Phillips Oppenheim's "The Passionate Quest," featuring Willard Louis, May McAvoy, Louise Fazenda and Gardner James.

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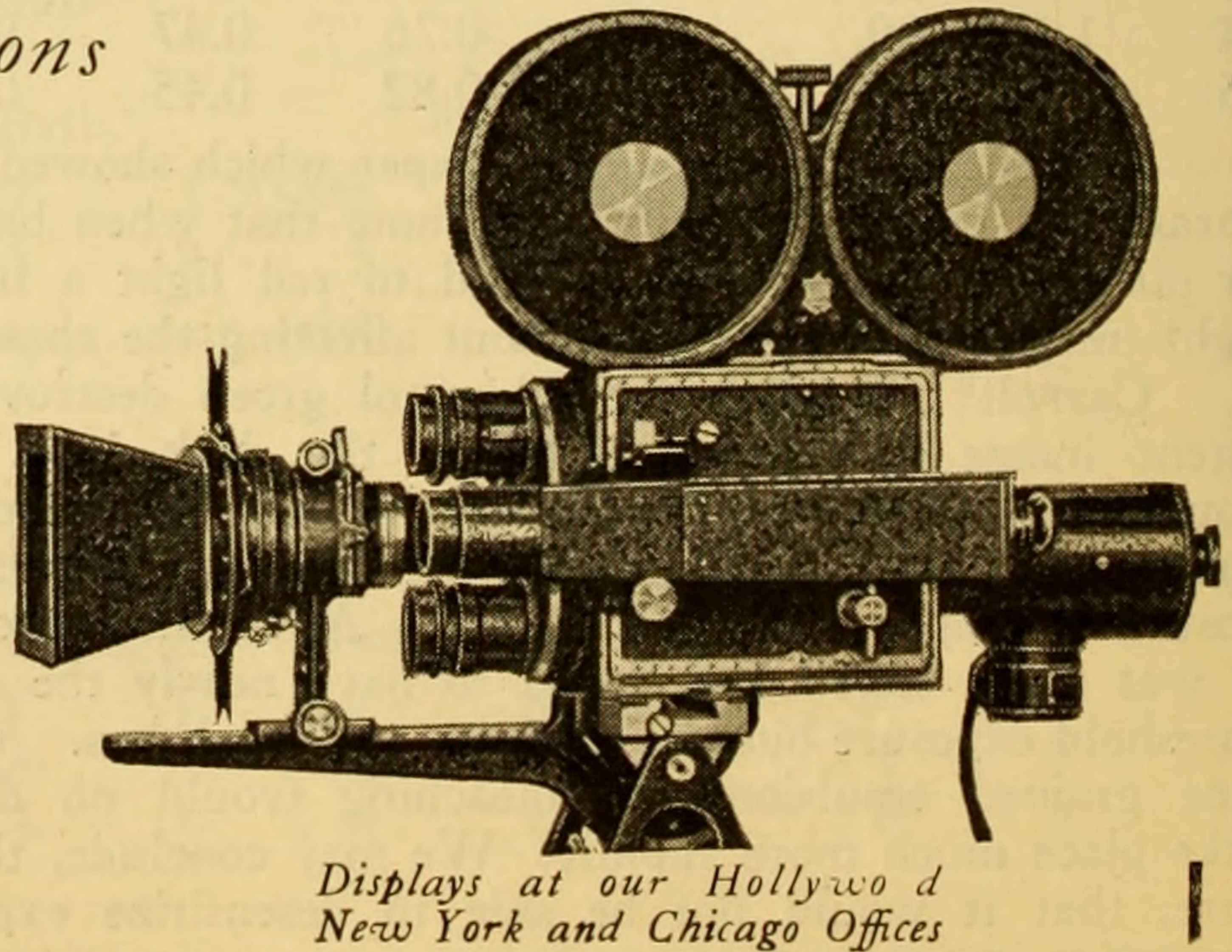

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Glen MacWilliams Chosen for A.S.C.

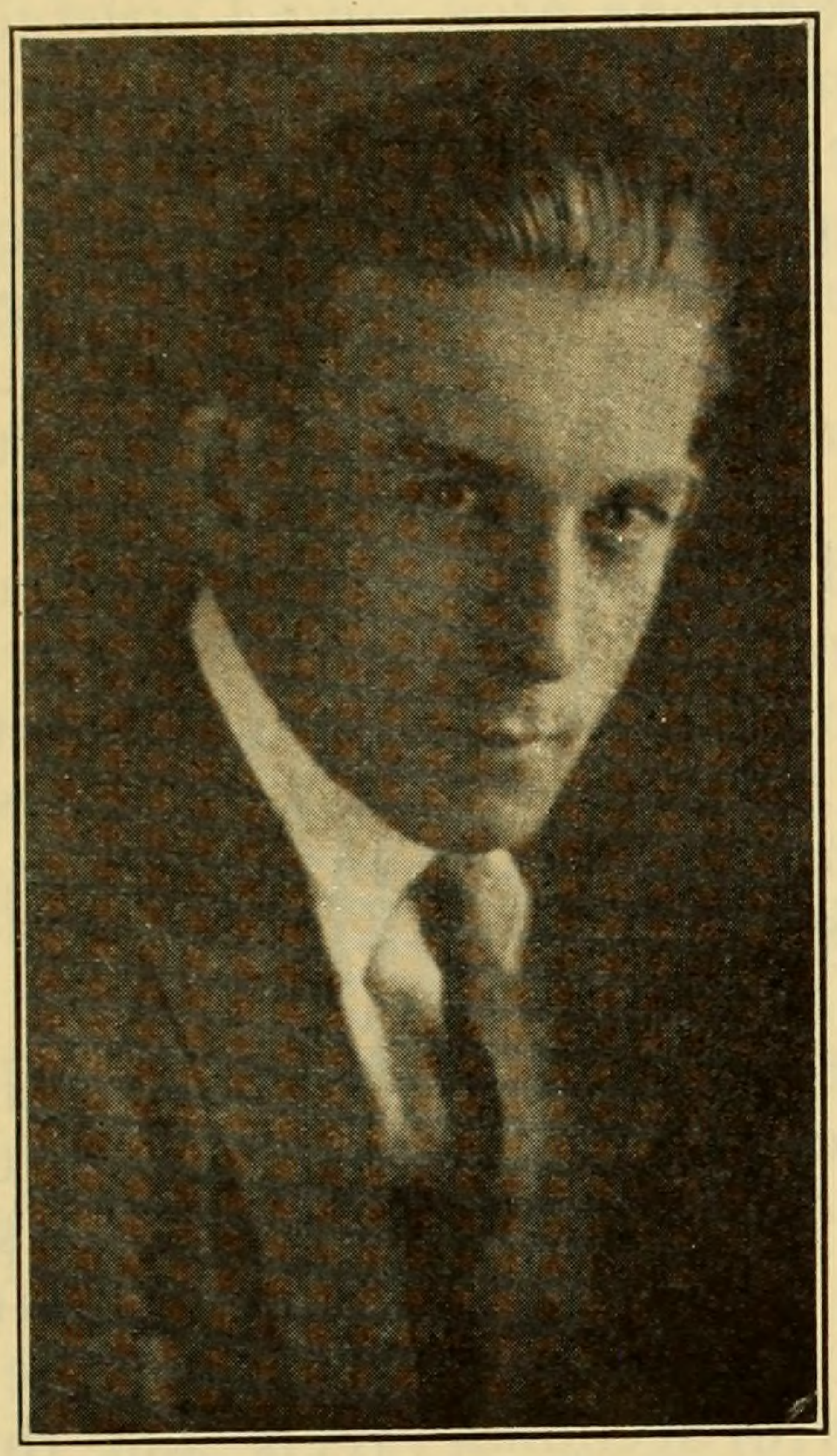
Membership Bestowed *on* Cinematographer *with* Enviable Record *of* Successes

Glen MacWilliams, well-known cinematographer, has been chosen for membership in the American Society of Cinematographers, according to announcement from the A. S. C. Board of Governors.

Began as Actor

MacWilliams entered the motion picture industry as an actor in 1913. His acting career included office boy and similar roles with the old Majestic - Reliance company. Suddenly MacWilliams made the discovery that he had outgrown "short-pants" parts, and naturally his ambitions turned to fuller fields in appearing before the camera. He was unable, however, to convince D. W. Griffith that he has a potential Walthall. When it appeared imminent that he would be obliged to leave the industry that had so intrigued his youthful imagination, MacWilliams encountered the opportunity to become an assistant cinematographer. Needless to say, that, when he was convinced that he no longer would be able to appear before the camera, he pounced on the chance to perform behind the magic instrument.

With Fox



Glen MacWilliams, A. S. C.

MacWilliams at present is one of the star cinematographers at the Fox studio in Hollywood, having just finished photographing "The Lily" for that organization. Recent productions which the new A. S. C. member has filmed at Fox include "Siberia," "Lazybones," "Thunder Mountain," and "The Wheel."

Other features on which MacWilliams has been chief cinematographer during the past several years embrace "Captain January," "The Mine with the Iron Door," "The Recreation of Brian Kent" and "Helen's Babies" for Principal Pictures; "Enemies of Children;" "The Dangerous Maid," for Joseph M. Schenck; "Quicksands," for Hawks-Morosco; "The Spider and the Rose," for Bennie Zeidman; "Rupert of Hentzau," for Selznick; "Deserted at the Altar," for Phil Goldstone; "The Lamp Lighter," "Wing Toy," "Partners of Fate," "The Mother Heart," "Ever Since Eve," and "Love Time," all for Fox; "The Poor Simp," for Selznick; and "My Boy," "Trouble" and "Oliver Twist," all starring Jackie Coogan.

High Regard

Commenting, in the eleventh anniversary number of the Exhibitors Herald, on the production program of his organization for the coming year, William Sistrom, general manager of the Cecil B. De Mille and the Metropolitan studios, emphasized the importance of the cinematographer in the scheme of motion picture making. Sistrom stated, in part, as follows:

> *"The most marvelous acting and the cleverest stories can easily be ruined by poor photography and here we also need stars of the photographic profession. My experience in this business leads me to a statement of absolute fact that for Producers Distributing Corporation we have the most adept group of cameramen the business can offer."*

Among the A. S. C. members who have filmed recent Metropolitan productions, the photography of which was praised by Sistrom, are Charles G. Clarke, J. D. Jennings, Georges Benoit, and James C. Van Trees.

PROJECTION

(Continued from Page 9)

on the film holds this dirt and more or less dissolves it. As the film is run through one projector after another, it picks up more dirt and receives more oil until it reaches a point of saturation, resulting in this foreign substance forming a cataract on both the emulsion and celluloid sides of the film.

There are none of you but that realize the importance of a reception of lights and shadows on the screen, unmarred by a soiled or dusty screen, dirty or sooty condensor lens, oil or dirt spots on the projection lens, or a hazy reflector in the lamp house. All these are under the control of the projectionist and can be totally eliminated through his efforts, but he is not equipped to remove dirt and oil from the film. As a result the screen presentation is marred in practically all instances where the film used has had five or six prior bookings.

Handicap

You can visualize some beautiful scene as viewed through a window, or through eye glasses which are covered with a film of oil and dirt. Magnify that condition by the ratio of the motion picture frame to the screen. The apparent results present the handicap that the projectionist attempts to overcome through higher lamp amperage, etc.

In the foregoing, I have tried briefly here to outline the cause and effect of dirt and oil on film. Going back to the beginning of my experiments in film cleaning, I will say that I've learned from them that the chemical or wash solution used is of vastly more importance than its application.

Requirements

In helping to build a proper wash solution, we found first that we wanted one that would remove all oil and dirt fast enough to suit the demands of any vehicle of sufficient capacity. Next, a non-inflammable fluid was necessary, and no inflammable or explosive gasses could be present. It had to be free from all salts and alkalis that would have attacked the silver salts in any way. There could be nothing in it that would attack the emulsion in any manner. It could not give off any gas that would impair the health of the cleaning operator and its cost had to be within a reasonable figure, and above all of these things, it had to *revitalize* the celluloid stock instead of devitalizing it. We have been able to secure such a solution and are using it today in our department, with satisfactory results in all of these features.

After our problems were solved in securing a satisfactory wash solution, we then had its application to consider and were fortunate in getting the manufacturer of the most acceptable machine then on the market, to agree to go through a period of trials and experiments with us. He agreed to any changes in his machine that he and we found would make it more adaptable. As a result of these experiments, we have a machine that does the work satisfactorily, quickly and inexpensively. This cleaning unit consists of one double cleaning machine, described later, and one film splicing machine, and an inspector's work table.

Capacity Per Hour

The cleaning operator can easily clean twelve to fifteen reels an hour on this double machine. As they come off the cleaning machine, they are handed to the inspector for inspection, the reels bands are placed on the reels and the work is then completed and ready to be placed in the vaults. Thus approximately one hundred reels are cleaned a day with the one machine.

How Operated

To describe the operation of the machine used, the film is passed first through a bath of the wash solution, about eight inches being submerged at a time. There are felt brushes submerged in the liquid that brush both sides of the film. The film then travels up through the rubber wipers, suspended on a spring at the same angle—very much in the same manner as a window cleaner uses his "sqeegee" in drying the water from a freshly washed window pane. The film then passes through or between flannel strips, slowly driven in an opposite direction to that which the film is traveling. The points of contact with these strips are arranged at offsetting points so that the tension of the film is sufficient to thoroughly polish it on both sides. It then passes through two rubber rollers, wringer-like, which is the only driving power or draught the film has in the entire operation and the film is then wound on a reel by an automatic take-up of the same principle as the take-up on the lower magazine of a projector. The entire operation requires about four and one half minutes to the thousand foot reel of film.

(Continued on Page 18)

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Filtered

The solution tank holds approximately one quart of the cleaning fluid and is drained off into a filter after every seventh or eighth reel has been cleaned. After the fluid passes through the filter, it can be used as often as it is thoroughly filtered and freed from the oil and dirt that it carries after it has cleaned the seven or eight reels. By actual measurements this filter, from a day's work of one hundred reels of film, has caught fourteen cubic inches of dirt and oil.

During these years of research, there have been many machines considered and tested, many wash solutions analyzed, and every system, with which we came in contact, was investigated. Many of them have merit, and almost all of them offer, in some manner, a remedy for dirty film. In most instances, the plants that were investigated were operated by their owners as cleaning plants and their business was altogether confined to cleaning film and not to selling equipment for film cleaning. In such cases it meant the loss of time to transport film to their plant. This research work included a very careful study of various types of machines which were on the market and recommended for exchange use, but which we found, after a very careful analysis, did not accomplish the result we desired.

Requirements

In analyzing a machine, it is necessary to take into consideration the following pertinent factors:

First, the capacity of the machine. In developing capacity, you must constantly bear in mind that the greater speed of the operation, the greater are the possibilities of your damaging the film. We have overcome this by using large aluminum rollers with wide flanges to guide the film. The film is pulled through the machine by two wide rubber rollers, arranged similar to a wringer. A gravity switch controls the motor so that should the film break, the entire plant is stopped immediately. There are no buffs or fast rotating polishers to heat the film, should it become stationary, and there are no sprocket teeth to injure it, or idler rollers to crease or mark it.

I have given you here an outline of the operation of our cleaning plant and must apologize for using our own operation as a concrete example, but feel that you would prefer to hear a report on the actual operation of a working plant, rather than having me present theoretical or hypothetical cases.

What Is Done

These results can be summed up as follows: We are now cleaning films, regardless of the amount of oil and dirt that there is on it, at the rate of one 1000-foot reel in practically five minutes. Every inch of the one thousand foot reel is entirely free from all oil and dirt; there has been no strain on the perforations in any manner; both sides of the film is polished; the silver salts in the emulsion have not been attacked in any manner; the tinting of either the film stock or of the emulsion is totally unaffected and is as safe against future attacks from the acids in the different lubricants the operators use, as it was before cleaning; the film stock is not shrunk or warped in any manner, and above all, every inch of that one thousand foot reel has had a bath in a chemical that will soften it and restore its elasticity.

Film that has had this treatment is so entirely free from anything offering any foreign resistance to its smooth passage through a projector, and is so entirely and thoroughly polished and lubricated in every corner and on all the surface of every perforation, that even though the corners of them may be weakened, the film is much less liable to damage than it was before its treatment.

Amateur Cinematography

(Continued from page 7)

to years of political and diplomatic discussion and suggestion. And now, to send films to each other for projections in our homes only costs the postage fee—and the good it can do can't be calculated in millions.

"We've had meetings here in Hartford to consider our own home movie organization here in this locality (including Springfield, New Haven, etc.) and the possibilities of extending it over the world. At these meetings, experts from two of the leading camera manufacturers have come on here to advise us. We have already learned a lot of lessons in our experience with radio. We have learned that such an organization must be absolutely altruistic. There can be no executive offices, no professional interference; an amateur organization of home movie photograpers must be kept 100 per cent for amateurs.

A New Sport For the Rich

"Just now, amateur movies are providing a big thrill for the wealthy, who have heretofore had private showings of professional films. Close-ups of the family playing golf or sitting on the beach, projected on the small screen in their own drawing rooms, provided a new sport, a new pastime.

"But not only the people in the Social Register are using home movie machines. We hear about only people like the Duke of York, the Hornblowers, the Schwabs, Colonel E. H. R. Green, the Vanderbilts and Galli-Curci making their own movies, but these are only a fraction of the ten thousand 'fans' today.

"Doctors use a small-size movie camera to record major operations, and use the films in instruction courses; architects 'shoot' the progress of skyscrapers; explorers use a small camera where a professional standard-size machine would mean leaving behind ammunition and food.

"Radio, like amateur cinematography, was first the fad of society—and society tired of it and went to something else. Amateurs have brought about great improvements in air communication because they worked from a whole-hearted love of its development. I feel sure that in cinematography, too, the influence of the amateur will be felt in a technical way as well as in the development of this international friendship—which I hope isn't an impractical vision of mine.

"Already chemists have perfected a non-inflammable film which will not explode and which can be used without danger, and engineers have adapted projectors that are foolproof. Four hundred feet of this small 16-millimeter film is equal to a thousand feet of the professional or 35-millimeter film, which brings the cost within the reach of everybody."

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DESENSITIZERS

(Continued from Page 13)

The data in Table IV were obtained from curves similar to those in Fig. 9. These values merely indicate the variation in the effect on rate of development and fog with several developers.

TABLE IV

Effect of a Preliminary Bath in Pinakryptol Green on Fog and Time of Development with Various Developers.

Developer.	Time in minutes required to reach the same image density. Soaked in water.	Desensitized.	Fog for same image density. Soaked in water.	Desensitized.
Pyro	3½	4	0.15	0.33
MQ-100* (Elon)	4¾	6¼	0.18	0.19
MQ-80 (Elon 80%, Hydroquinone 20%)	3½	4¾	0.16	0.21
MQ-25 (Elon 25%, Hydroquinone 75%)	2½	3¾	0.14	0.24
MQ-O (Hydroquinone)	10¾	10½	0.33	0.38
Chlorhydroquinone (MQ Formula)	5¼	3¾	0.14	0.16
Caustic Glycin	7¼	8½	0.13	0.14
Rodinal	5½	7¼	0.20	0.12

*MQ formula is: developing agent 5 grams, sodium sulphite 75 grams, sodium carbonate 25 grams, and potassium bromide 1.5 grams per liter.

Among these developers only rodinal showed a distinct decrease in fog on the desensitized film, while with glycin and elon there was no appreciable change. It should perhaps be emphasized that 5 minutes treatment in a 1-10,000 solution is a longer time than is required in most cases for satisfactory desensitizing, but a shorter treatment would only diminish these effects and not eliminate them. Phenosafranine, which is generally stated to give no fog, was tested in the same way as the pinakryptol green with similar results. With pyro it gave bad fog, with MQ-100 no additional fog was produced, and in both cases development was retarded. It appears from the data obtained in these tests that the fog produced in a developer after desensitizing is closely related to the tendency of that developer to precipitate the dye. Possibly the precipitate formed in the emulsion has some sort of nucleating effect and so promotes the growth of fog.

5. *Useful Life of a Desensitizing Bath.*

The instructions furnished with pinakryptol green state that the solution should be kept in the dark, so it is probably light sensitive. However, solutions have been kept for severel weeks in an ordinary dark room in which a skylight was frequently open without noticeable decrease in strength.

The solutions of concentration 1-5000, 1-10,000, 1-25,000 and 1-50,000 used in tests previously described were also tested for exhaustion. Over a period of 10

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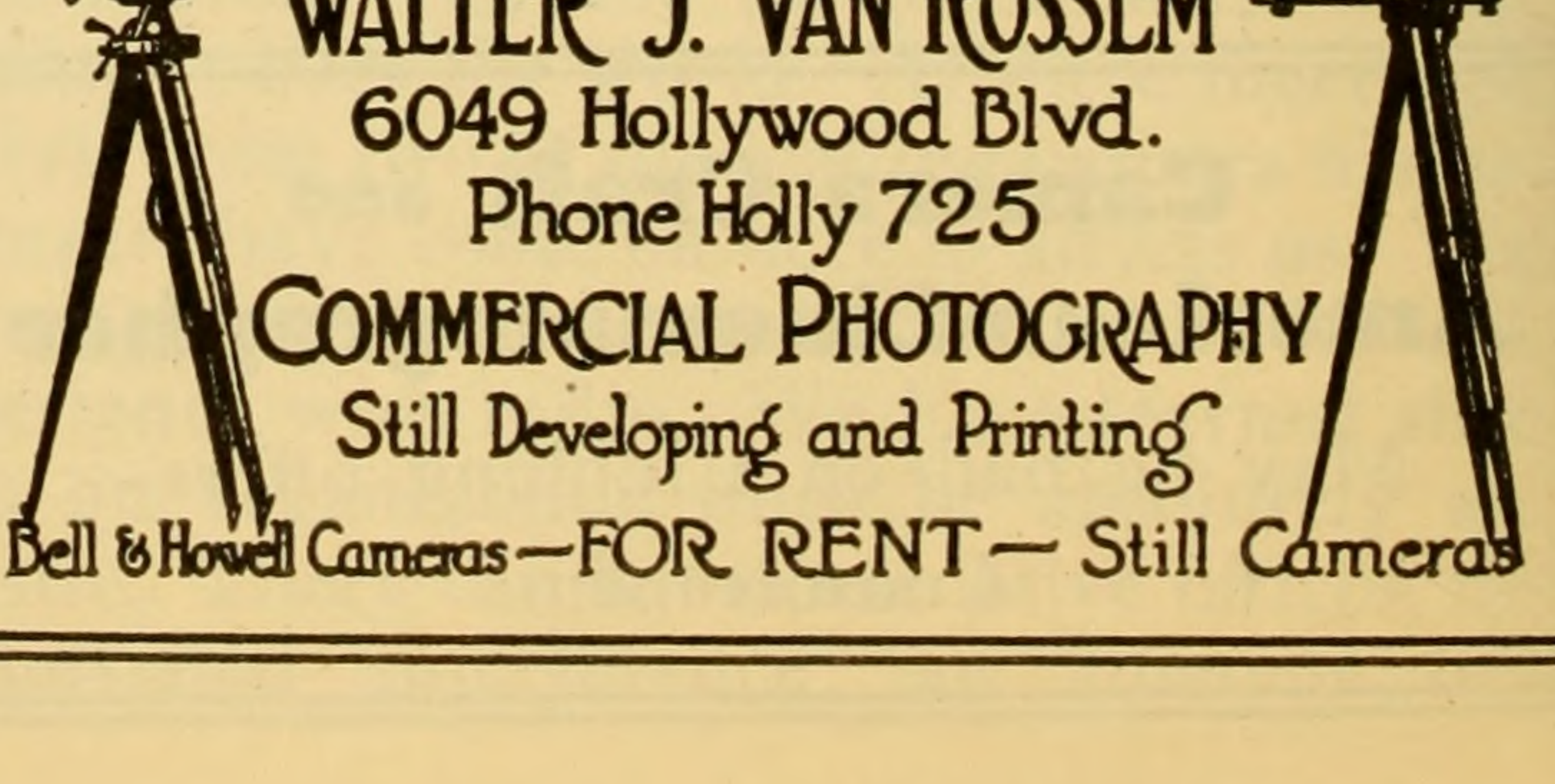

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days a total of one hundred 8" x 10" sheets of panchromatic film per gallon (equivalent to about 500 feet of motion picture film) were desensitized and at the end of that period a test showed an average difference of about one step on the tablet used for these tests. Inasmuch as two steps on the tablet doubled the exposure and desensitizing is proportional to concentration, this indicated a loss of about 25% in the active concentration of the bath. More stock solution could be added to keep up the strength for further use, but a difference of that magnitude should be well within the limits of safety allowed. A tank of desensitizing bath could therefore be used at least as long as a tank developer, and by occasional strengthening its life could be extended very greatly. We have no indication that the fogging action or retarding effect on development is greater in old solutions than in fresh ones of equal desensitizing power.

Wooden racks become stained when used repeatedly in a desensitizing solution, and so a test was made to see if the dye were absorbed by dried cypress wood sufficiently to interfere with the activity of the bath. The effect, if any, was found to be inappreciable.

Small amounts of hypo up to 0.1% were added to a pinakryptol green solution and even after considerable use there was no indication that the hypo interfered in any way with the desensitizing action of the dye.

VI. THE USE OF PINAKRYPTOL GREEN IN THE DEVELOPER

1. *Solubility in Developers.*

The most serious difficulty in using desensitizers in the developer is their tendency to form a precipitate with certain developing agents. The insoluble substance formed is apparently a combination of the dye and developing agent which forms in alkaline solutions. If the developer is oxidized the reaction reverses and the dye reappears in the solution. The formation of the precipitate is greatly retarded by the presence of quinone or oxidation products of the developer. For example, if a developer is partially oxidized by standing exposed to air or if 5% to 10% of exhausted developer is added to the fresh solution much less trouble from precipitation occurs.

Hydroquinone gives the most difficulty in this respect of any developer tried in this laboratory. It can be used in elon-hydroquinone developers in which the concentration of hydroquinone is not too high. For example, in the elon-hydroquinone tank developer (MQ-80 tank) it can be added to a concentration of 1-25,000, in regular MQ-80 only about half that amount will remain in a fresh developer, while with No. 16 motion picture developer less than 1-100,000 is soluble. With pyro-soda 1:1 (B. J. formula) 1-25,000 precipitates if the solution is protected from the air, but in a tray oxidation takes place so rapidly that the precipitate may not form. When diluted 1:1:2 as usually recommended, the precipitation takes place in the same way if the developer is kept from oxidizing.

Chlorhydroquinone (adurol) gives only slightly less trouble than hydroquinone. Para aminophenol with carbonate or with caustic alkali in the form of rodinal, glycin, and elon, either do not give a precipiate, or if one forms in a concentrated stock solution it readily redissolves on dilution of the developer for use. These facts are discussed fully by Luppo-Cramer[8] (Bright Light Development, p. 52).

When precipitation in a developer is likely to occur it is very important to add the desensitizer very slowly

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with constant agitation and to use as dilute a stock solution as is convenient. When a precipitate once forms because of a high local concentration it dissolves very slowly, if at all.

We have never been able to prepare successfully a phenosafranine-hydroquinone developer as frequently recommended in the literature.

2. *Effect of Concentration and Time of Bathing on Desensitizing.*

With pinakryptol green and most other desensitizers the effectiveness is greatly increased by the presence of the developer and therefore the concentration of dye required is much less than when used in a water solution. In Figs. 4 and 5 curves are given which show the comparative desensitizing action of pinakryptol green in different concentrations when used in the developer and in a preliminary bath. From these curves it is evident that a concentration of 1-25,000 in an elon-hydroquinone developer produces more desensitizing in a given time than a 1-5000 solution in water. In view of this fact Hubl[5] has suggested that development be started with an old developer containing desensitizer and completed in a fresh developer without desensitizer. He also states that after a preliminary bath the desensitizing is increased when the film is put into the developer rather than the dye being washed out. This, of course, does not apply to desensitizers which are made inactive by sulphite.

3. *Limits of Safety in Exposing Desensitized Film to Different Safelights.*

In Table II data are also given which show the safe time of exposure to different safelights after desensitizing with different concentrations of pinakryptol green in the developer. It can be seen that panchromatic film can easily be made safe for the bright green light Series 4, but not for bright red lights. Motion picture negative film, on the other hand, can easily be made safe for the Series 0 or even Series 00 safelight.

4. *Fogging Action of Pinakryptol Green when used in the Developer.*

It is stated by the manufacturers of pinakryptol green that it diminishes development fog, and a similar effect was found by Amor[4] for several desensitizers. The effect of pinakryptol green added to the developer in concentrations between 1-25,000 and 1-100,000 was studied for several different developers, including glycin, rodinal, elon, elon-hyroquinone and pyro. Motion picture negative film was used. In most cases it was found that both the development of the image and the growth of fog were retarded. The effect of shortening the induction period is the same as when used as a preliminary bath. However, for the same image density in most cases the fog was slightly less when desensitizer was present. The decrease in fog density varied from 0 to 0.04 with different developers for normal development, and was not therefore of sufficient magnitude to be of very great practical importance. In no case was any serious fogging action detected when the dye was used in the developer.

5. *Comparative Desensitizing Action During Exhaustion of Developer.*

In order to find whether the desensitizer in a developer was effective throughout the life of the developer, solutions containing 1-25,000, 1-50,000, and 1-100,000 of pinakryptol green in MQ- Tank developer were exhausted. Over a period of 10 days one

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hundred 8″ x 10″ sheets of panchromatic film per gallon were developed (equivalent to 5000 feet of motion picture film). At the end of this time film desensitized in ths solutions showed an average differnce of three steps on the tablet exposures from the values obtained when fresh. This means that in these tests the effective concentration of the dye had decreased to less than one-half of its original value. In another set of similar solutions exhausted to half that extent no decrease in desensitizing action could be detected. It is probable that the margin of safety would be sufficient to cover any loss of desensitizing power during the life of the developer. In case of doubt more dye may be added occasionally.

There was no indication in these or other tests that the dye affects the life of the developer.

6. *Composition of the Developer.*

In this investigation only the elon-hydroquinone tank developer (MQ-80 Tank) was used for exact studies of the behavior of the desensitizing dye in the developer. This is a typical dilute elon-hydroquinone developer and is widely used for motion picture work. On account of the large amount of labor involved the investigation was not extended to developers of different composition. Information in the literature, and our general experience do not indicate any marked difference in desensitizing with any developer in which the dye is sufficiently soluble to be used satisfactorily. However, desensitizers affect the speed of development to an extent which varies both with the developer and with the particular dye used. In practice, therefore, when using a desensitizer the proper development time must be found for each individual combination.

SUMMARY

1. A desensitizer is used primarily to secure greater visibility during development although it also prevents aerial oxidation fog. Greater visibility may also be obtained by so choosing a safelight that the visual intensity of the light which it transmits is a maximum and its photographic intensity in relation to the emulsion used is a minimum.

2. A practical desensitizer in addition to having a satisfactory desensitizing action must not affect the latent image or the shape of the characteristic curve of the developed image. It must also not give fog or stain and should be soluble and stable in a developer. No desensitizer is known which is stable in a developer rich in hydroquinone.

3. The properties of the following commercial desensitizers have been studied in the light of the above requirements: phenosafranine, pinakryptol green, pinakryptol yellow, basic scarlet N, and aurantia.

4. The limits of safety in the use of pinakryptol green with motion picture negative and panchromatic emulsions have been determined. This desensitizer was chosen because it appeared to be the most satisfactory of the known desensitizers at the time of this investigation.

5. The comparative safety of untreated film and film desensitized for varying times with varying concentrations of pinakryptol green to different safelights has been studied. By bathing panchromatic film in a 1-10,000 solution of pinakryptol green, or after it has been in a developer containing 1-25,000 of this desensitizer for 2 or 3 minutes, inspection of the film may be conducted with safety with a Series 4 Wratten safelight containing a 25 W. bulb at a distance of 1 foot (30 cm.). Under the same conditions motion picture negative film may be safely examined with a Series O safelight.

7. A latent image on a desensitized emulsion tends to bleach out when exposed to red light. This bleaching action is greatest with non-color sensitive emulsions. With panchromatic emulsions the effect is not serious and after development has commenced no appreciable bleaching occurs. With desensitized non-color sensitive emulsions the same time of exposure to a red safelight is determined by the time required to destroy the latent image and not by the time required to produce fog.

8. Data have been obtained on the fogging action of various desensitizers with developers.

9. An exhaustive study has also been made on the effect of pinakryptol green when used in the developer instead of as a preliminary bath.

Practical Importance of Desensitizers

With superspeed motion picture negative film it is possible to satisfactorily inspect the image with safety during development without the use of a desensitizer. With an 8 x 10 Wratten Series 2 safelight containing a 25 W. bulb, the emulsion can be given an exposure of 2 minutes at a distance of 1 ft. (30 cm.) before a visible fog is produced, which time is far in excess of the time necessary for satisfactory inspection of the film. With this film therefore the use of desensitizers is unnecessary.

With panchromatic motion picture negative film, under the above conditions an objectionable fog is produced in 10 seconds. Inspection of this film during development is therefore dangerous and unless a desensitizer is used development should always be carried out in the dark for a predetermined time at a given temperature as determined by the preliminary development of test strips.

The use of pinakryptol green either as a preliminary bath or when added to the developer will permit of the safe inspection of panchormatic film with a Wratten Series 4 safelight containing a 25 W. bulb at a distance of 1 foot (30 cm.). The film should not be exposed to this light until the film has been immersed in the desensitizing solution for at least 3 minutes.

For use dissolve 2-3 ounce of pinakryptol green in 50 gallons of water (20 grams per 200 liters) as a preliminary bath. When used in the developer dissolve 120 grains per 50 gallons (8 grams per 200 liters). It is usually impossible to add the desensitizer to a developer rich in hydroquinone because the desensitizer is precipitated. The dye should first be dissolved in as small a quantity of hot water as possible and then diluted with cold water or added to the developer.

Desensitizers are valuable insofar as they permit of greater visibility during development and prevent aerial oxidation fog. They are not indispensable, however, and there is always a danger of accidentally fogging an emulsion in the bright light before the desensitizing solution has had sufficient time to act. With panchromatic emulsions their use permits of inspection of the image during development which is otherwise not possible.

(Continued from Page 10)

together in one place. Also it will contain the general offices of the company and of the sales department.

Different Lines

Construction of this important building is in line with the success of the company in the fields of its activity. These are industrial illumination, photographic and motion picture lighting; also in the various applications of quartz apparatus as a source of ultra-violet light. An added field is the manufacture of mercury switches.

The plan for development is evidence of the confidence of the board of directors in the future of the company under the administration of W. A. D. Evans, who has been president since its affiliation with the General Electric Co.

Lockwood Greene & Co. of New York are the engineers on the new job. The contracts for building have not as yet been awarded.

Cohen Celebrates Eleventh Anniversary With Pathe News

Emanuel Cohen, editor of Pathe News, sailed for Europe last month via the S. S. Majestic, bound for England, France, Germany and other European countries, where he will confer with his camera staff and expand his facilities abroad along certain lines. He recently celebrated his 11th anniversary as editor of Pathe News.

E. Burton Steene, A. S. C., has returned to Hollywood from Oakland, Calif., where he filmed Akeley camera shots for Paramount's "The Campus Flirt."

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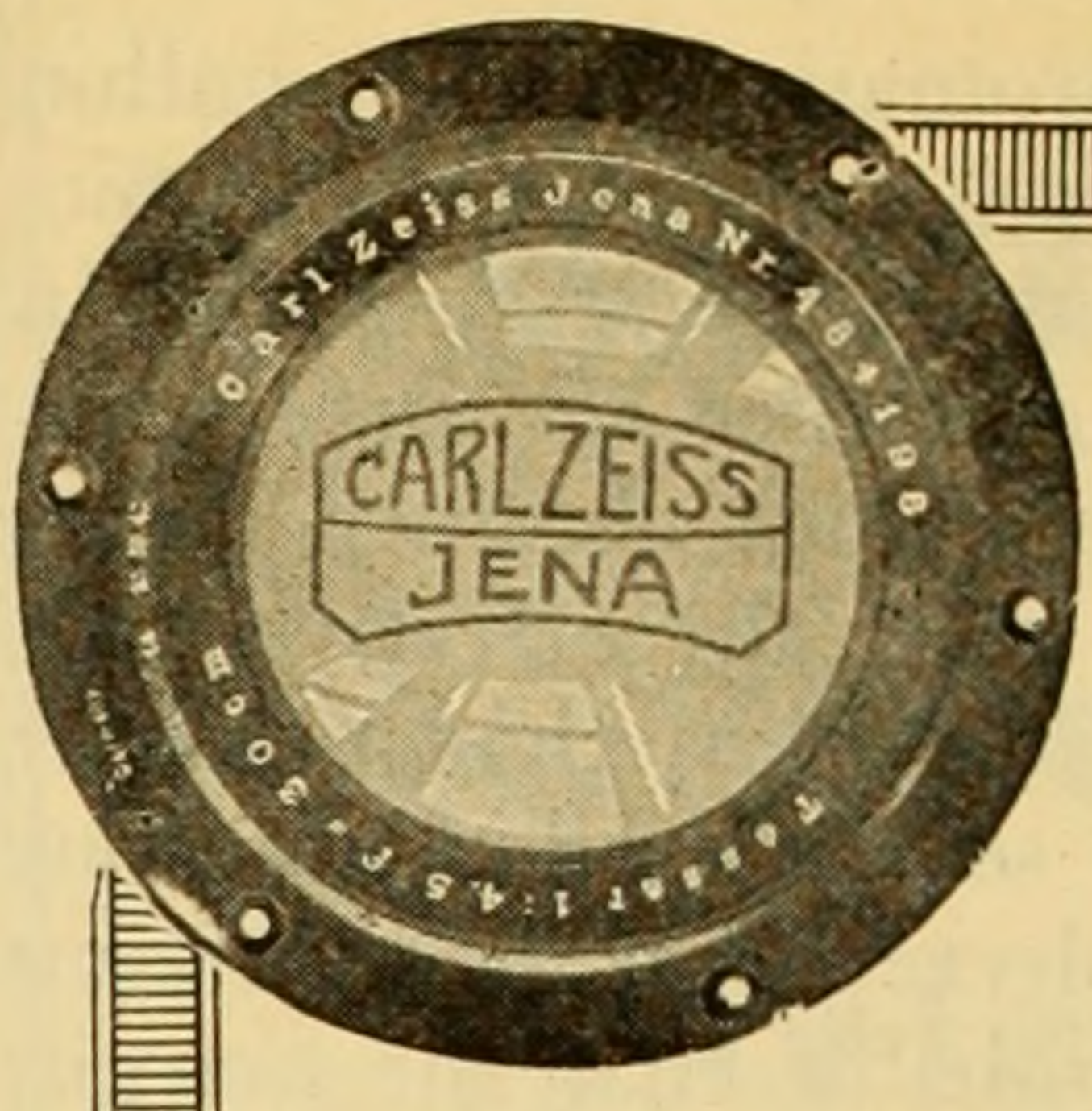

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International Newsreel Chief Visits Los Angeles

E. B. Hatrick, vice-president and general manager of International Newsreel, is in Los Angeles, where he will remain a month.

M. D. Clofine, editor of International Newsreel, who has been on the Coast for some time in connection with International Newsreel's pictures of Amundsen's arrival at Teller, Alaska, returned to New York late last week.

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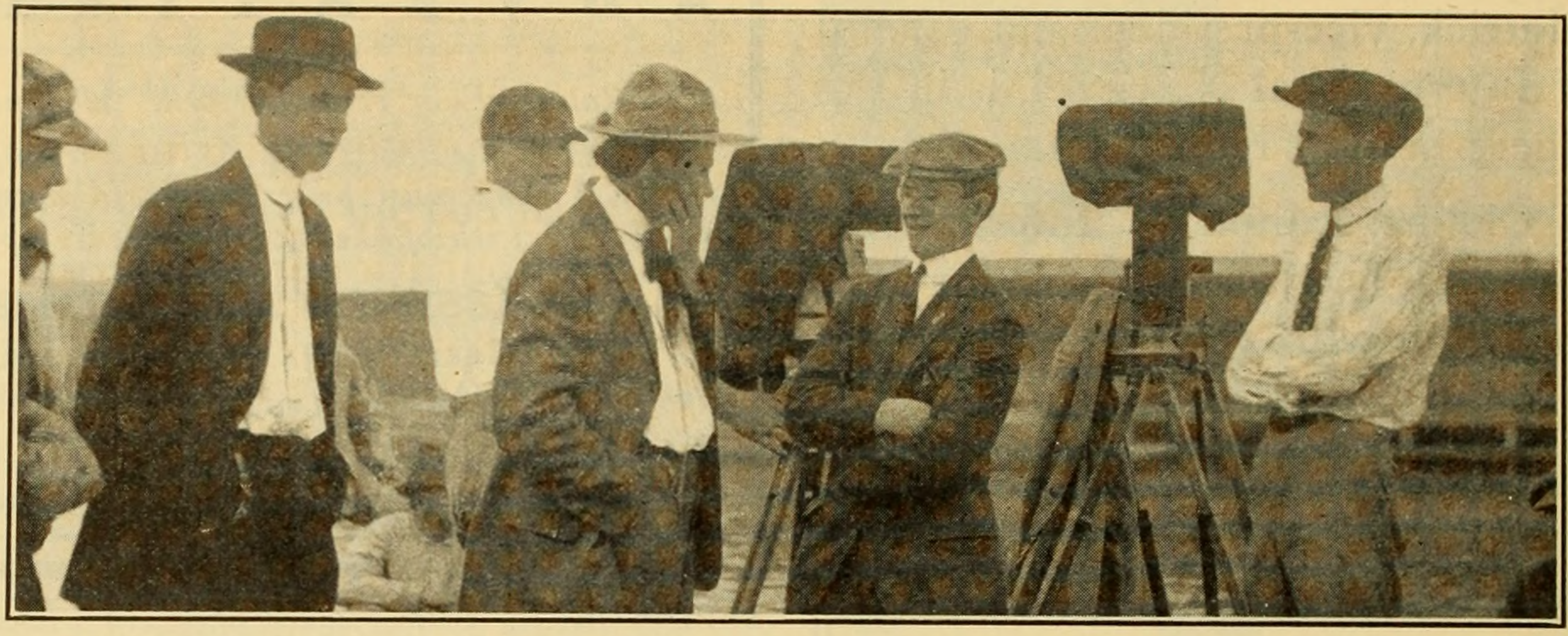

This shot shows pioneer American news cinematographers in Galveston, Texas, in April, 1914, during the trouble with Mexico revolving about Huerta's refusal to salute the American flag. On the extreme right is E. Burton Steene and second from the right is Victor Milner, both of whom were covering events for Pathe Weekly. The gentleman in the center with the Stetson and with his hand to his chin is none other than Romaine Fielding, a foremost director. The rotund lad behind Fielding is one "Kewpie" Morgan, a "discovery" of the director in Galveston. Missing from the picture is L. Guy Wilky, who was cinematographer for Fielding. Milner, Wilky and Steene are now studio cinematographers located in Hollywood and all are members of the American Society of Cinematographers. At the time the photograph was taken, American patriotism was at its highest point since the Spanish-American war; and celebrities of the newspaper and literary work, including Richard Harding Davis and Jack London, were in the adventurous atmosphere at Galveston for the departure of Gen. Fred Funston's five transports for Vera Cruz.

Steene's headquarters for Pathe were in Houston, and he worked the cramped territory that extended from Florida on the East to El Paso on the West. Milner was down from Denver, the headquarters from which he covered a country that stretched as far west as Salt Lake City.

Cinematographer Films Many Sets on Griffith's Latest

Harry Fischbeck, A. S. C., is being called on for a variety of lightings and general cinematographic effects, by virtue of the many sets in D. W. Griffith's "Sorrows of Satan," on which the A. S. C. member is chief cinematographer.

Twenty-two sets have been used in D. W. Griffith's "The Sorrows of Satan," nearing completion at the Paramount Long Island studio. The sets range from palatial hotel dining-room to squalid boarding house. Two thousand extras have been used. All exterior as well as interior scenes were shot from sets. Charles M. Kirk designed them for Forrest Halsey's screen arrangement of the Marie Corelli novel.

The hotel dining room was 200x120 feet and William Cohill, casting director, provided 300 guests fashionably attired. Paul Oscard of Publix trained women dancers for the cabaret entertainment.

In five days the fronts of 30 buildings were put up and painted and plastered and a street paved, when an exterior set from the back lot was removed to finish a street scene. In four days a garden 220x120 feet was constructed. As fast as one part of this set was finished another part was being torn down after the shooting had been done and a Georgina hall went up. When the park sequence was complete the interior of the mansion was ready.

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Fried, Abe—with Fox Studio.

Gaudio, Gaetano—with Metro-Goldwyn-Mayer Studios.
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Glennon, Bert—with Famous Players-Lasky.
Good, Frank B.—with Jackie Coogan Prod., Metro-Goldwyn-Mayer Studios.
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Meetings of the American Society of Cinematographers are held every Monday evening. On the first and the third Monday of each month the open meeting is held; and on the second and the fourth, the meeting of the Board of Governors.

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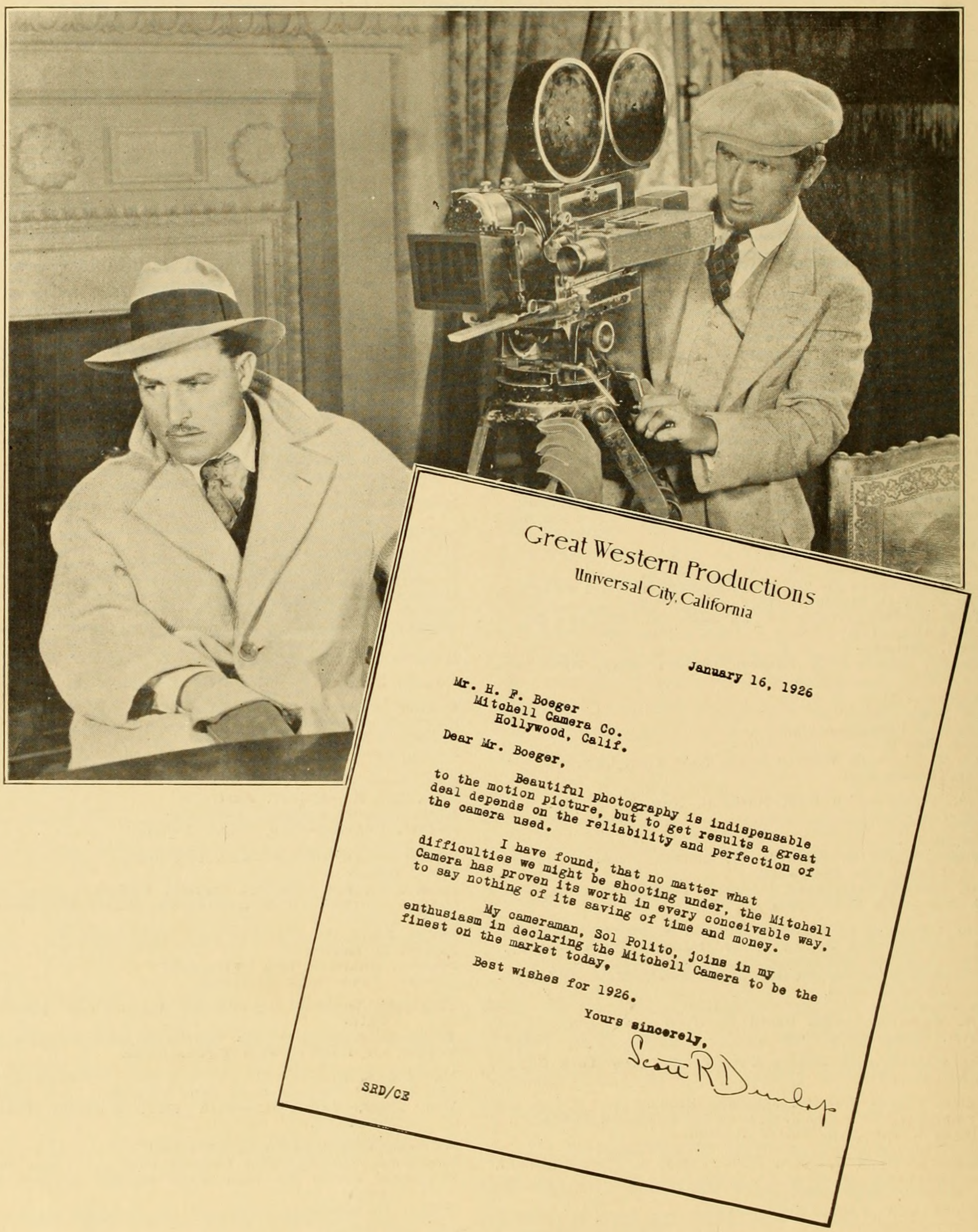

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